

HUGHES

Application No. 09/623,977

January 5, 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A teleconferencing system comprising a conference bridge ~~(100)~~ having a multichannel connection ~~(5)~~ to each of a plurality of terminal equipments, and ~~at least one~~ a plurality of terminal equipments for receiving individual channels, each of the terminal equipments ~~(10)~~ having means ~~(15)~~ to separately process each channel to provide a plurality of outputs, each output representing one of the other terminal equipments.

64 2. (currently amended) A system according to claim 1, wherein at least one of the terminal equipments ~~(10)~~ has spatialisation means ~~(15)~~, to combine the outputs representing each terminal equipment to provide a spatialisation output in which each terminal equipment is represented by a virtual sound source.

3. (currently amended) A teleconferencing system comprising a conference bridge having a multichannel connection to each of a plurality of terminal equipments, and at least one terminal equipment having means to separately process each channel to provide a plurality of outputs, each output representing one of the other terminal equipments;

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~~A system according to claim 1, wherein the conference bridge (100) comprises a concentrator (230), having means to identify the currently active input channels (3, 21, 31), and to transmit only those active channels over the multichannel connection (5), together with control information (4) identifying the transmitted channels.~~

4. (currently amended) A system according to claim 1, wherein the channel representing a given terminal equipment is excluded from the output provided in that terminal.

5. (currently amended) A system according to claim 4, comprising means ~~(16)~~ in at least one of the terminal equipments for excluding the ~~said~~ channel from the processing.

6. (currently amended) A system according to claim 4, comprising means for excluding the ~~said~~ channel from the multichannel transmission from the bridge ~~(100)~~ to the respective terminal equipment ~~(10)~~.

7. (currently amended) A system according to claim 1, provided with selection means whereby the ~~use~~ user of an individual terminal can select which channel, or channels, of the plurality of channels are to be output by the user terminal.

8. (currently amended) A system according to claim 1, at least one of the terminal equipments ~~(10)~~ having echo cancellation means ~~(16)~~ comprising means for detecting correlations between the output signal from the at least one terminal equipment and input signals carried on individual input channels to the at least one terminal equipment, the input signals being representative of other terminals equipments, such correlations being indicative of acoustic feedback at the at least one terminal equipment, and means for canceling such feedback signals in the output signal.

9. (currently amended) A system according to claim 8, wherein at least one of the terminal equipment ~~(10)~~ comprises, for each channel of the output signal, a plurality of adaptive filters, each adaptive filter being arranged to model the echo path between a respective input channel and the respective output channel, and for each output channel there being provided a combiner for adding the outputs of the respective plurality of adaptive filters to generate an echo cancellation signal for the respective output channel.

10. (currently amended) A method of providing teleconferencing services to a plurality of terminal equipments each of which receives channels, in which a multichannel connection is provided from a conference bridge ~~(100)~~ to each terminal equipment ~~(10)~~, in which ~~at least one~~ each of the plurality of terminal equipments

processes each channel separately to provide a plurality of outputs, such output each representing a respective one of the other ~~terminal~~ terminal equipments.

11. (currently amended) A method according to claim 10, wherein the outputs are processed to generate a spatialised output in which each cooperating terminal equipment is represented by a virtual sound source.

12. (currently amended) A method of providing teleconferencing services to a plurality of terminal equipments, in which a multichannel connection is provided from a conference bridge to each terminal equipment, in which at least one terminal equipment processes each channel separately to provide a plurality of outputs, such output each representing a respective one of the other terminal equipments;

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~~A method according to claim 10,~~ wherein the conference bridge (100) identifies the currently active input channels and transmits only those active channels over the multichannel connection, together with control information identifying the transmitted channels.

13. (currently amended) A method according to claim 10, wherein the channel representing a given terminal equipment is excluded from the output provided to that terminal equipment.

14. (currently amended) A method according to claim 10, in which correlations are detected between the output signal from a given terminal equipment and input signals carried on individual input channels to the terminal equipment, the input signals being representative of other terminals equipments, such correlations being indicative of acoustic feedback at the terminal equipment, and cancelling such feedback signals in the output signal.

15. (original) A method according to claim 14, wherein, for each channel of the output signal, an adaptive filter models the echo path between a respective input channel and the respective output channel, and for each output channel the outputs of the respective plurality of adaptive filters are added to generate an echo cancellation signal for the respective output channel.

66 16. (new) A teleconferencing system comprising a conference bridge having a multichannel connection to each of a plurality of terminal equipments, and a plurality of terminal equipments for receiving individual independent monaural channels, each of the terminal equipments having means to separately process each individual independent monaural channel to provide a plurality of outputs, each output representing one of the other terminal equipments.

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17. (new) A method of providing teleconferencing services to a plurality of terminal equipments each of which receives individual independent monaural channels, in which a multichannel connection is provided from a conference bridge to each terminal equipment, in which each of the plurality of terminal equipments process each individual independent monaural channel separately to provide a plurality of outputs, such output each representing a respective one of the other terminals.
